

FOUNDATION OF CIVIL ENGINEERS.

[FACADE OF THE NEW BUILDING.]



of 24,000 acres, and also of several other sea defences at the mouth of the Thames and elsewhere, in which fascines were extensively used. The new embankments were also described. Specimens were shewn of the "arundo arenaria," a coarse grass, whose roots extend sometimes to a length of upwards of 30 feet, and which is eminently useful in securing the sand of the coast from being blown or washed away.

Among several cases of the failure of protecting walls, one was particularly described, of a nearly vertical sea wall, whose foundations were sunk down full 5 feet below the oblique of the coast. The wall was built with great care and with first-rate materials: it was, however, exposed to the action of a heavy sea in North Wales.

During a severe storm the waves were thrown up in a mass full 40 feet above the wall, and falling from that height with the force due to such a distance and mass, very speedily destroyed the whole wall. In quite as exposed a situation, a slope, which enabled the waves to expend their strength, and broke them up into foam, did not suffer at all. Numerous deductions were drawn from these and many other instances, all unfavourable to the theory of vertical sea walls, which it has recently become fashionable to recommend as a theoretically more correct form, in opposition to the well-tried plan of eminent civil engineers, who have almost universally adopted slopes for resisting the action of the sea.

THE THAMES TUNNEL is to be disposed of, if possible, to some railway company.

THE ALTERATIONS AT THE INSTITUTION OF CIVIL ENGINEERS.

We have already noticed the alterations which were made in the house of the Institution during the late recess (p. 48 ante).

Above we give a view of the new façade, as executed in Caen stone, under the direction of Messrs. Wyatt and Brandon, so that non-resident members may judge for themselves of the improvement that has been effected externally.

As soon as the works were commenced, it was discovered that the foundation of the south-west, or front wall facing Great George-street, as is the case with most of the houses in Westminster, was laid upon timber, which had decayed. The wall itself was in a very insecure condition, and there were only slight bond timbers across the windows, so that the whole front was in a dangerous state. In order to remedy this, a new foundation of brick and cement, upon a mass of concrete, was put in, arches were turned over, and reversed arches under the windows; wherever it was requisite, the piers were repaired, and one was entirely rebuilt in brick and cement, nearly up to the second floor; above that level they were repaired, but on the third floor and attic, the entire floor fell down on removing the window-frames, and it was necessarily rebuilt. The front casing of Caen stone was carried up simultaneously with these repairs. A portico for the entrance, and balconies for the first and second floor, were added; and the height of the windows was increased, converting them into French casements, for the sake of improving the light and ventilation.

"The size of the new theatre is proposed to

be, 45 feet long, 28 feet 9 inches wide, and 22 feet high, affording sitting accommodation to 235 persons, and a gain of space for 97 persons. The ventilation is provided for by a shaft rising from the centre of the ceiling to a large cowl on the roof, and a supply of warm or cold air can be admitted, through apertures in the skirting, from Price's warm-water apparatus, according to the temperature of the theatre."

Previously to the alterations, efforts were made, without effect, to obtain suitable land for a new building. Application was made for a plot in the new street, proposed to be constructed by the Westminster Improvement Company: the following extract from the report of the council, as recording the rent asked for land there may not be uninteresting.

"The Surveyor of the Company, although not at present in a position to quote positive terms, presumed, that for a piece of ground having a frontage of 40 feet in width, at the corner of the new square, opposite the west doors of Westminster Abbey, and 150 feet in depth, fronting the projected new street, the annual ground-rent would be 160*l.*, granting a lease of 99 years, but redeemable at 30 years purchase, or 4,800*l.*"

MANUFACTURES AND DECORATIONS AT THE SOCIETY OF ARTS.

On Wednesday evening the Society of Arts opened an exhibition of select specimens of British manufacture and decorative art, which was attended by a very large number of visitors. Mr. W. Tooke, F.R.S., who has been a staunch friend of the Society, took the chair, and made a judicious appeal for aid in the course they were pursuing. Mr. J. S. Russell, the secretary, then read some introductory remarks, setting forth, that it was the first of a series of annual exhibitions, by means of which the Society hoped to contribute to the progress of those objects for the encouragement of which it was originally instituted; and commenting on some of the articles exhibited. He justly remarked:

"We are quite persuaded that the manufactures of this country can only prosper in so far as they are supported by the many, because the peculiarity of the manufactures of this country, more than abroad, is their wonderful power of multiplying. Foreigners produce an exquisite object of artistic usefulness in china or glass, but it is only one; another would cost the same sum, and that sum is such as to make it attainable only by the emperor or the favoured few. English manufacturers, on the other hand, produce a thousand from one. What a consummate artist has designed, they can multiply by the thousand. It is only, therefore, by the appreciation of the thousands and the millions, that taste, design and high art, applied to our manufactures, can be supported."

We want, therefore, by this exhibition, to place before the public a few selected specimens in some of the decorative arts, of what our artists, manufacturers, and mechanics have done and are doing for the advancement of their various arts to perfection. We wish to make their achievements more widely known and appreciated. We wish to show what they have done that is really good, and what might be still further improved. We are persuaded that if artistic manufactures are not appreciated, it is because they are not widely enough known. We believe that when works of high merit, of British origin, are brought forward, they will be fully appreciated and thoroughly enjoyed. We believe that this exhibition, when thrown open gratuitously to all, will tend to improve the public taste."

And again:—"If it should be objected to some of the articles here, that they are not so good as some that might have been obtained—we would answer, that is possibly true. If our visitors find fault correctly with any thing they see, we shall be as much gratified as if they praise. The one thing we wish them to do is, to praise and appreciate that which is good, and to blame where faults really exist. Let the visitor praise in the right place,—let him blame in the right place,—and the object of our exhibition has been attained."

We must look to the specimens themselves on another occasion.